	Application No.	Applicant(s)
Notice of Allowability	09/832,572	DWIGHT W. CALKINS
	Examiner	Art Unit
	Baoquoc N To	2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *07/21/2004*.

2. ☒ The allowed claim(s) is/are *1,2 and 6-37*.

3. ☒ The drawings filed on *11 April 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) ∎

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

JEAN M. CORRIELUS
PRIMARY EXAMINER

DETAILED ACTION

1.   Claims 1, 6, 7, 27, 28, 29 and 37 are amended, claims 3-5 are canceled in the
amendment filed on 07/26/2004. Claims 1-2, 6-37 are pending in this application.

Continued Prosecution Application

2.   The request filed on 07/26/04 for a Request For Continued Application (RCE)
under 37 CFR 1.53(d) based on parent Application No. 09/832572 is acceptable and a
RCE has been established. An action on the RCE follows.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview
with Shelley M. Beckstrand Reg. No. 24,886 on 09/26/2004.

Please cancel and amend the application as follow:

Please replace claim 1 with;--A method for for processing index numbers of
accounts payable records from a plurality of accounts payable systems to identify
duplicate records among multiple systems, comprising the steps of:

loading first records having an index number into a database from a plurality of
accounts payable systems during a first predetermined time period;

for each record having said index number, searching said database for another record, loaded during a second earlier time period, having the same index number and replacing said another record, if found, with said first record;

comparing each first record for which no matching index number record was found with all other first records for which no matching index number record was found;

comparing each of said first records for which no matching index number record was found with all the other records including the replaced records in said database;

generating reports of the comparing steps, the reports listing records which compared; and

eliminating from said database said first records deemed to have compared.--

Please replace claim 7 with;-- A method for capturing packets of possible duplicate invoices for duplicate invoice analysis, comprising the steps of:

preparing a set of invoices including all invoices from all of a plurality of accounts payable systems for different entities within an enterprise;

removing selected invoices from said set of invoices based upon first expert criteria to form an investigative packet;

maintaining as a first subset of said investigative packet a collection of current invoices that have not yet been paid;

maintaining as a second subset of said investigative packet a collection of history invoices that have been paid;

generating based on second expert criteria from said current invoices and said history invoices a plurality of intermediate packets of invoices exhibiting a same behavior, each said intermediate packet including at least one invoice from said collection of current invoices;

dropping packets from said plurality of intermediate packets based on third expert criteria;

flagging invoices in remaining intermediate packets based on fourth expert criteria;

dropping from said remaining intermediate packets to form a final set of packets invoices which have not been flagged; and

generating from said final set of packets a first report of invoices having same invoice numbers and vendor numbers, a second report of invoices having similar

vendor names and same invoice amounts; a third report of invoices having

similar invoice dates and invoice amounts differing only on flagged conditions; a

fourth report of invoices having same invoice amounts and invoice numbers but

not same date and vendor name; a fifth report of invoices having same invoice

numbers and vendor names but not same vendor number and invoice amount;

and a sixth report of invoices having same invoice numbers, vendor name and

invoice amounts, irrespective of invoice date.--

Please replace claim 26 with;--A program storage device readable by a machine,

tangibly embodying a program of instructions executable by a machine to perform

method steps for processing index numbers of accounts payable records from a

plurality of accounts payable systems to duplicate records, said method steps

comprising:

loading first records having an index number into a database during a first

predetermined time period;

for each record having said index number, searching said database for another

record, loaded during a second earlier time period, having the same index

number and replacing said another record, if found, with said first record;

comparing each first record for which no matching index number record was

found with all other first records for which no matching index number invoice was

found;

comparing each of said first invoices for which no matching index number record

was found with all the other records including the replaced records in said

database;

generating reports of the comparing steps, the reports listing records which

compared; and

eliminating from said database said first records deemed to have compared.--

Please replace claim 28 with;--A program storage device readable by a machine,

tangibly embodying a program of instructions executable by a machine to perform

method steps for capturing packets of possible duplicate invoices for duplicate invoice

analysis, said method steps comprising:

preparing a set of invoices including all invoices from all from all of a plurality of

accounts payable systems for different entities within an enterprise;

removing selected invoices from said set of invoices based upon first expert

criteria to form an investigative packet;

maintaining as a first subset of said investigative packet a collection of current

invoices that have not yet been paid;

maintaining as a second subset of said investigative packet a collection of history invoices that have been paid;

generating based on second expert criteria from said current invoices and said history invoices a plurality of intermediate packets of invoices exhibiting a same behavior, each said intermediate packet including at least one invoice from said collection of current invoices;

dropping packets from said plurality of intermediate packets based on third expert criteria;

flagging invoices in remaining intermediate packets based on fourth expert criteria; and

dropping from said remaining intermediate packets to form a final set of packets invoices which have not been flagged.--

Please replace claim 29 with; --A system for capturing packets of possible duplicate invoices for duplicate invoice analysis, comprising:

a set of invoices including all invoices from all of a plurality of accounts payable systems of an enterprise;

an investigative packet formed by removing selected invoices from said set of invoices based upon first expert criteria;

a first subset of said investigative packet including a current file of invoices that have not yet been paid;

a second subset of said investigative packet including a history file of invoices that have been paid; and

a plurality of intermediate packets of invoices generated based on second expert criteria from said first and second subsets for storing invoices exhibiting a same behavior, said packet including at least one invoice from said of current file; and

a plurality of reports generated from a plurality of said packets including a first report of invoices having same invoice numbers and vendor numbers, a second report of invoices having similar vendor names and same invoice amounts; a third report of invoices having similar invoice dates and invoice amounts differing only on flagged conditions; a fourth report of invoices having same invoice amounts and invoice numbers but not same date and vendor name; a fifth report of invoices having same invoice numbers and vendor names but not same vendor number and invoice amount; and a sixth report of invoices having same invoice numbers, vendor name and invoice amounts, irrespective of invoice date.--

Please replace claim 36 with; --A computer program product or computer program element for processing index numbers of accounts payable records from a plurality of accounts payable systems to identify duplicate records according to method steps comprising:

loading first records having an index number into a database during a first predetermined time period;

for each record having said index number, searching said database for another record, loaded during a second earlier time period, having the same index number and replacing said another record, if found, with said first record;

comparing each first record for which no matching index number record was found with all other first records for which no matching index number invoice was found;

comparing each of said first invoices for which no matching index number record was found with all the other records including the replaced records in said database;

generating reports of the comparing steps, the reports listing records which compared; and

eliminating from said database said first records deemed to have compared.--

Please replace claim 37 with; --A computer program product or computer program element for capturing packets of possible duplicate invoices for duplicate invoice analysis according to method steps comprising:

preparing a set of invoices including all invoices from all of a plurality of accounts payable systems for different entities within an enterprise;

removing selected invoices from said set of invoices based upon first expert criteria to form an investigative packet;

maintaining as a first subset of said investigative packet a collection of current invoices that have not yet been paid;

maintaining as a second subset of said investigative packet a collection of history invoices that have been paid;

generating based on second expert criteria from said current invoices and said history invoices a plurality of intermediate packets of invoices exhibiting a same behavior, each said intermediate packet including at least one invoice from said collection of current invoices;

dropping packets from said plurality of intermediate packets based on third expert criteria;

flagging invoices in remaining intermediate packets based on fourth expert criteria; and

dropping invoices which have not been flagged from said remaining intermediate packets to form a final set of packets.--

Allowable Subject Matter

3.   Claims 1-2, 6-37 are allowed over prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

As to claims 1, 26 and 36, none of the prior art made of record alone or incombination neither teach or suggest "for each record having said index number, searching said database for another record. loading during a second earlier time period, having the same index number and replacing said another record, if found, with said first record; comparing each first record for which no matching index number record was found with all other first records for which no matching index number record was found;" in conjunction with other limitations "loading first records having an index number into a database from a plurality of accounts payable systems during a first predetermined time period; comparing each of said first records for which no matching index number record was found with all the other records including the replaced records in said database; generating reports of the comparing steps, the reports listing records which compared; and eliminating from said database said first records deemed to have compared."

Claim 2 is depended on claim 1, therefore, claim 2 is allowable under the same reason.

As to claims 6 and 27, none of the prior art made of record alone or incombination neither teach or suggest "maintaining a compact database by entering invoice data to said compact database from a plurality of accounts payable systems for payment at a later date and removing canceled invoice documents and invoice documents older than a predetermined period; responsive to submission of an invoice with a null invoice indicia field entering date indicia in said null invoice indicia field;

extracting data from said compact database by matching on suppliers invoice indicia

name, date and amount;

checking said compact database for duplicate invoices before said later date; and

producing said report from said data."

As to claims 7, 28-29 and 37, none of the prior art made of record alone or

incombination neither teach or suggest " preparing a set of invoices including all

invoices from all of a plurality of accounts payable systems for different entities within an

enterprise; removing selected invoices from said set of invoices based upon first expert

criteria to form an investigative packet; maintaining as a first subset of said investigative

packet a collection of current invoices that have not yet been paid; maintaining as a

second subset of said investigative packet a collection of history invoices that have

been paid; generating based on second expert criteria from said current invoices and

said history invoices a plurality of intermediate packets of invoices exhibiting a same

behavior, each said intermediate packet including at least one invoice from said

collection of current invoices; dropping packets from said plurality of intermediate

packets based on third expert criteria; flagging invoices in remaining intermediate

packets based on fourth expert criteria; dropping from said remaining intermediate

packets to form a final set of packet to form a final set of packets invoices which have

not been flagged; and generating from said final set of packets a first report of invoices

having same invoice numbers and vendor numbers, a second report of invoices having

similar vendor names and same invoice amounts; a third report of invoices having

similar invoice dates and invoice amounts differing only on flagged conditions; a fourth

report of invoices having same invoice amounts and invoice numbers but not same date

and vendor name; a fifth report of invoices having same invoice numbers and vendor

names but not same vendor number and invoice amount; and a sixth report of invoices

having same invoice numbers, vendor name and invoice amounts, irrespective of

invoice date."

Claims 8-25 and 30-35 are depended on claims 7, 28-29, and 37, therefore, they

are allowable under the same reason.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Patent

Stolfo et al.	(US. Patent No. 5,497,486)	Patent date: 03/05/1996.
Stolfo et al.	(US. Patent No. 5,717,915)	Patent date: 02/10/1998.
Gormley et al.	(US. Patent No. 5,806,057)	Patent date: 09/08/1998.
Lepien	(US. Patent No. 6,636,850 B2)	Patent date: 10/21/2003.
Stone et al.	(US. 2003/0212617 A1)	Patent date: 11/13/2003.

NPL

Dina et al. Duplicate record elimination in large data files (ACM transactions on

Database System (TODS), ACM Press, Volume 8, Issue 2, Year 1983, pages 255-265.

Amy et al. Duplicate detection using k-way sorting method (Symposium on

Applied Computing), ACM Pres, Year 2000, Pages 323-327.

Contact Information

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at (703) 305-9790.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

> (703) 872-9306 [Official Communication]

Hand-delivered responses should be brought to:

> Crystal Park II
> 2121 Crystal Drive
> Arlington, VA 22202
> Fourth Floor (Receptionist).

Baoquoc N. To

September 5, 2004

JEAN M. CORRIELUS
PRIMARY EXAMINER